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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 10/601,372 | 06/23/2003 | Rex C. Donahey | 1547520/58400 | 7479 |
| 26386 | 7590 | 11/14/2006 | EXAMINER | |
| DAVIS, BROWN, KOEHN, SHORS & ROBERTS, P.C. | | | YIP, WINNIE S | |
| THE FINANCIAL CENTER | | | ART UNIT | |
| 666 WALNUT STREET | | | PAPER NUMBER | |
| SUITE 2500 | | | 3636 | |
| DES MOINES, IA 50309-3993 | | | DATE MAILED: 11/14/2006 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,372

Applicant(s)

DONAHEY ET AL.

Examiner

Winnie Yip

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-10,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-10,12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to applicant's amendment filed on August 9, 2006 for a Request Continued Examination (RCE) of earlier application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

1. Claims 12-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In this case, the features “non-cementitious connectors” (claim 12) and “the connectors have a thermal efficiency higher than that of concrete” (claim 13) claim a specific type of connector which is made of “non-cementitious” material or made of a material having a thermal efficiency higher than concrete” were not described in the specification. The specification only defines the “connectors 22 are fabricated from a material that provides lower thermal conductivity” (see page 5, lines 16). Therefore, the lower thermal conductivity connector is not necessary to be made of “non-cementitious” material or has “a thermal efficiency higher than concrete” as claimed. Now new matter can be entered. Therefore, these features have not been treated on the merits.

Since claims 12 and 13 are duplicated to claim 1 except the feature of “non-cementitious connectors” or the feature “the connectors have a thermal efficiency higher than that of concrete”, therefore, **claims 12 and 13 have not been treated on the merits.**

In addition, regard to claim 13, the feature “the connectors have a thermal efficiency higher than that of concrete” is confusing. According to the specification (see page 5, lines 16-18), the connectors 22 “are fabricated from a material that provides lower thermal conductivity”. Therefore, it is confusing whether applicant attempts to claim the connector having a lower thermal conductivity or have a higher thermal efficiency? The two features appears inconsistent each other.

Claim Rejections - 35 USC § 103

2. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masters (US Patent No. 6,434,900) in view of Keith et al. (US Patent No. 6,138,981).

Masters teaches an insulated concrete panel comprising: a first and second concrete layers (30) spaced apart from each other, an insulation layer (32) being disposed between the first and second layers, a post-tensioning tendon assembly including anchor plates (58) connecting with longitudinal elements of high-strength rods (56), and an adjustable eyebolt being disposed in the panel and positioned substantially in the plane of the insulation layer, wherein the eyebolt operatively and adjustably connected to the anchor plate and the longitudinal element to produce tension in the longitudinal element and compression in the concrete layers. Although Masters does not define connectors interconnecting the two concrete layers through the insulation layer as claimed, Keith et al. teach an insulating concrete wall panel comprising an insulation layer (84) being disposed between first and second concrete layers (86, 88), and a plurality of connectors (10, 40, 60) being made of lower conductivity material and disposed the two concrete layers through the insulation layer for transmitting structural forces between the concrete layers to provide a composite wall panel. It would have been obvious to one ordinary

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skill in the art at the time the invention was made to modify the insulated concrete wall panel of Master having a plurality of lower conductivity connectors disposed between the two concrete layers through the insulation layer as taught by Keith et al. for interconnecting two concrete layers with the insulation layer therebetween to form a composite panel.

Regard to claims 7-10, to form an insulated concrete panel as claimed would have been obvious to the person of ordinary skill in this art at the time the invention was made with the method of Masters in view of Keith et al. as explained, combined, and applied before him particularly at the time of the reduction to practice of the subject matter of these claims.

3. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin et al. (US Patent No. 5,678,373) in view of Clark (US Patent No. 6,088,985).

Franklin et al. teaches an insulated concrete panel comprising: a first and second concrete layers (36) spaced apart from each other by spacer (38), an insulation layer being capably disposed in the space formed between the first and second layers, two post-tensioning tendon assemblies (20, 14, 18) including anchor plates (64, 116) connecting with longitudinal elements of high-strength rods (24), and an adjustable coupler (56) being disposed in the panel and positioned substantially in the plane of the insulation layer, wherein the coupler operatively and adjustably connected to the anchor plate and the longitudinal element to produce tension in the longitudinal element and compression in the concrete layers. Although Franklin et al. do not define connectors interconnecting the two concrete layers through the insulation layer as claimed, Clark teach an insulating concrete wall panel comprising an insulation layer (16) being disposed between first and second concrete layers (12, 14), and a plurality of connectors (20)

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being made of lower conductivity material and disposed the two concrete layers through the insulation layer for transmitting structural forces between the concrete layers to provide a composite wall panel, wherein the concrete layers being made of plastic concrete, the connectors are positioned into the first concrete layer (i.e., 14) through the insulation layer while the first concrete layer (14) still plastic (see col. 4, line 60-68), and the second concrete layer (12) being placed on the insulation layer and consolidated around the exposed end portions of the connectors as claimed. It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the insulated concrete wall panel of Master having a plurality of lower conductivity connectors disposed between the two plastic concrete layers through an insulation layer disposed therebetween as taught by Clark for interconnecting two plastic concrete layers with the insulation layer therebetween to form a composite panel.

Regard to claims 7-10, to form an insulated concrete panel as claimed would have been obvious to the person of ordinary skill in this art at the time the invention was made with the method of Franklin et al. in view of Clark as explained, combined, and applied before him particularly at the time of the reduction to practice of the subject matter of these claims.

Response to Arguments

4. Applicant's arguments with respect to claims 1-5 and 6-10 have been considered but are moot in view of the new ground(s) of rejection.

Citations

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Paterson '730, Pardo '602, and Tan et al. '829 teach a post-tensioning tendon assembly disposed in a concrete panel as similar to the claimed invention. Steenson et al.

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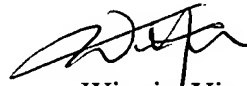
'065 teaches a wall panel having an insulation layer disposed between two concrete layers and a lifting assembly disposed in a plane of an insulation layer as similar to the claimed invention.

Inquiry Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Winnie Yip whose telephone number is 571-272-6870. The examiner can normally be reached on M-F (9:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Winnie Yip
Primary Examiner
Art Unit 3636

wsy
November 9, 2006